



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,063	05/09/2006	Catherine Robert	S1022.81243US00	1852

46329 7590 02/06/2008  
STMicroelectronics Inc.  
c/o WOLF, GREENFIELD & SACKS, P.C.  
600 Atlantic Avenue  
BOSTON, MA 02210-2206

EXAMINER
----------

MOLL, JESSE R

ART UNIT	PAPER NUMBER
----------	--------------

2181

MAIL DATE	DELIVERY MODE
-----------	---------------

02/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/535,063

Applicant(s)

ROBERT ET AL.

Examiner

Jesse R. Moll

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 October 2007 has been entered.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheon (U.S. Patent Application No. 6,070,210), herein referred to as Cheon'210.

Referring to claim 1, Cheon'210 discloses, as claimed, a method comprising: transmitting first digital messages to an analysis tool (Memory 110; see fig. 2) from a monitoring circuit (DMA device 100, see Fig. 2) representative of first specific events (such as the event for writing to memory 110) which depend on execution of an instruction sequence by a microprocessor (200, see Fig. 2), integrated to the microprocessor (200, see Fig. 2); detecting, with a request circuit, at least one second specific event (the events for sending data from SCSI 120 to DMA device 100, see Dig. 2; the request received through DREQ see Fig. 2, must be detected) independent from the execution of the instruction sequence by the microprocessor; transmitting to the monitoring circuit (DMA device 100, see Fig. 2), when the at least one second specific event is detected (inherently, a device will transmit in response to the request DREQ), a characteristic data signal (through DATA port in memory 110., see Fig. 2) associated with said at least one second specific event; storing the characteristic data signal (stored in such as registers inside DMA device 100 for temporarily storing data sent from SCSI controller 120 see Fig. 2) in the monitoring circuit (DMA device 100, see Fig. 2) and, if resource management conditions are fulfilled (such as in the situation when memory 10 is available for being written), transmitting an acknowledgement signal (through DACK, see Fig. 2) to the request circuit; and transmitting (through DATA port in memory 110., see Fig. 2) at least one second digital message representative of the stored characteristic data signal to the analysis tool (Memory 110; see fig. 2); and

processing the first digital messages and the at least one second digital message via the analysis (inherently, if the messages are received [to memory 110 or , they must be processed) tool to analyze operation of the microprocessor and the at least one second specific event (any message is related to and is intended to analyze some portion of processor operation).

Claim 5 recites equivalent limitations as claim 1, but is claimed as an apparatus. Claim 5 is rejected as the apparatus using the method of claim 1.

As to claim 2, Cheon'210 also discloses: the method of claim 1, in which the resource management conditions are fulfilled when the monitoring circuit (DMA device 100, see Fig. 2) is not transmitting digital messages representative of the first specific events (note this is in the situation when DMA device is available to be used).

As to claim 3, Cheon'210 also discloses: the method of claim 1, in which the digital message representative of the stored data signal comprises an identifier (such as valid/invalid bit) and the characteristic data signal (the data bits).

As to claim 4, Cheon'210 also discloses: the method of claim 1, in which the characteristic data (DATA) signal corresponds to the values on input terminals (such as the MBR for CPU connecting the data bus in the Cheon'210's system) of the microprocessor (200, see Fig. 2).

As to claim 6, Cheon'210 also discloses: the device of claim 5, in which the request circuit (such as ALU in the CPU of the Cheon'210's system), the monitoring circuit (SCSI controller 120, see Fig. 2), the monitoring circuit (DMA device 100, see Fig. 2), and the microprocessor are integrated in a same chip (see Fig. 2).

As to claim 7, Cheon'210 also discloses: the apparatus of claim 5, in which the detection means (such as ALU in the CPU of the Cheon'210's system) is connected to input terminals (such as the MBR for CPU connecting the data bus in the Cheon'210's system) of the microprocessor (200, see Fig. 2).

### ***Response to Arguments***

3. Applicant's arguments filed 16 January 2007 regarding the rejection of claims 1-7 under 35 USC 102 have been fully considered but they are not persuasive. Regarding the arguments directed to the amended claims, see the details in the rejection above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse R. Moll whose telephone number is (571)272-2703. The examiner can normally be reached on M-F 10:00 am - 6:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571)272-4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/535,063  
Art Unit: 2181

Page 6

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jesse R Moll  
Examiner  
Art Unit 2181

2/1/2008

NIKETA PATEL  
PRIMARY EXAMINER  
*Niketa Patel*  
2/4/2008